### **BRIEFING PAPER**

# ON THE 1999 INFANT MORTALITY RATE

## FOR THE

## **DISTRICT OF COLUMBIA**

## Prepared by

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#### **Statistical Overview**

There has been an overall declining trend in the infant mortality rate over the past ten years from 1990 to 1999. During this ten-year period, the number of infant deaths declined from 236 in 1990 to 113 in 1999 resulting in an overall decline in the District's infant mortality rate of 25 percent between 1990 and 1999. There were 123 fewer infant deaths in 1999 compared to 1990 and there were 4,293 fewer live births in 1999 compared to 1990. Table 1 presents a ten-year summary of these statistics

In 1999 there were 7,513 live births and 113 infant deaths to District of Columbia residents (Table 1). This resulted in an infant mortality rate of 15.0 deaths for every 1,000 live births. In 1998 there were 7,678 live births and 96 infant deaths. The infant mortality rate for 1998 was 12.5 deaths per 1,000 live births. There were 17 more infant deaths in 1999 than in 1998 and 165 fewer births to District women in 1999 as compared to 1998. Ward 3 had the lowest infant mortality rate at 5.9 deaths per 1,000 live births and ward 8 had the highest infant mortality rate at 27.5 deaths per 1,000 live births.

	Table 1: Ten-Year Infant Mortality Trends District of Columbia Residents, 1990-1999						
Year	Births	Infant Deaths	Infant Mortality Rate*				
1990	11,806	236	20.0				
1991	11,650	235	20.2				
1992	10,939	200	18.3				
1993	10,614	177	16.7				
1994	9,911	180	18.2				
1995	8,993	145	16.1				
1996	8,377	121	14.4				
1997	7,916	104	13.1				
1998	7,678	96	12.5				
1999	7,513	113	15.0				

<sup>\*</sup> Per 1.000 live births.

#### **1998 to 1999 Comparisons**

- The number of infant deaths increased from 96 in 1998 to 113 in 1999.
- The overall infant mortality rate for the District increased by 20 percent from a rate of 12.5 in 1998 per 1,000 live births to 15.0 per 1,000 live births for 1999.
- The infant mortality rates increased in Wards 3, 4, 6, and 8.
- The postneonatal death rate (deaths occurring from 28 days to under one year of age) was 3.3 per 1,000 live births in 1999 compared to 5.5 per 1,000 live births in 1998, a decline of 40.0 percent..
- Death to infants younger than 28 days increased by 67.1 percent from 7.0 per 1,000 in 1998 to 11.7 per 1,000 in 1999.
- The infant death rate to black mothers increased from 15.0 per 1,000 live births in 1998 to 18.5 per 1,000 live births in 1999.
- The infant death rate to white mothers increased from 3.1 per 1,000 live births in 1998 to 8.2 per 1,000 live births in 1999.
- Births to teenage mothers decreased from 15.3 percent of the total in 1998 to 14.8 percent of the total in 1999.

Of the 113 infant deaths that occurred in 1999, eighty-eight (or 77.9 percent) occurred during the neonatal period (under 28 days of life). The neonatal death rate increased by 67.1 percent from 7.0 per 1,000 live births in 1998 to 11.7 per 1,000 live births in 1999. The neonatal period is important relative to efforts to reduce infant mortality. Many of the causes of infant deaths during this period could have been mitigated or prevented with preconception and prenatal care.

### **Factors Contributing to Infant Mortality**

Vital statistics over the years have indicated that factors such as low birthweight and lack of adequate prenatal care are associated with infant mortality. In 1999, the percentage of low birthweight infants (those weighing under 2,500 grams or 5.5 pounds) in the District was 13.3 compared to 13.1 percent in 1998 (Table 2). This represents a slight increase of 1.5 percent. The percentage of low birthweight babies that were born to all black mothers increased from 16.0 in 1998 to 16.3 in 1999. Comparatively, there was an increase in low birthweight babies born to all white mothers, from 6.0 in 1998 to 6.4 in 1999.

Table 2: Percent Distribution of Low Birth Weight Babies by Race of Mother District of Columbia Residents, 1998 and 1999						
Race	1998	1999	<b>Percent Change</b>			
Total Births for All Races	7,678	7,513				
- Number Low Birth Weight	1,007	997				
- Percentage among all Births	13.1%	13.3%	1.5%			
Total Births to Black Mothers	5,381	5,081				
- Number Low Birth Weight	855	827				
- Percentage among Births to Black Mothers	15.9%	16.3%	2.5%			
Total Births to White Mothers	1,392	1,467				
- Number Low Birth Weight	84	94				
- Percentage among Births to White Mothers	6.0%	6.4%	6.7%			

Low Birth Weight means under 2,500 grams or 5lbs. 8oz.

In the District of Columbia the percentage of low birthweight infants born to all mothers under 20 years of age decreased from 13.4 in 1998 to 12.7 in 1999 (Table 3). The percentage of low birthweight babies born to all mothers 20 years of age and older increased from 13.1 percent in 1998 to 13.3 percent in 1999.

Table 3: Percent Distribution of Low Birth Weight Babies by Age of Mother						
District of Columbia Residents, 1998 and 1999  1998 1999						
Total Births for All Ages	7,678	7,513	Change			
<ul><li>Number of Low Birth Weight</li><li>Percentage of Low Birth Weight</li></ul>	1,007 13.1%	997 13.3%	1.5%			
Total Births to Mothers Under 20 Years of Age	1,172	1,113	1.370			
<ul><li>Number of Low Birth Weight</li><li>Percentage of Low Birth Weight</li></ul>	157 13.4%	141 12.7%	-5.2%			
among mothers < 20 years old						
Total Births to Mothers 20 Years of Age and Older	6,505	6,383				
<ul> <li>Number of Low Birth Weight</li> <li>Percentage of Low Birth Weight among mothers ≥20 years old</li> </ul>	850 13.1%	851 13.3%	1.5%			
Total Births to Mothers Whose Age is Unknown	1	17				
<ul><li>Number of Low Birth Weight</li><li>Percentage of Low Birth Weight</li></ul>	0 0.0%	5 29.4%	_			

Low Birth Weight means under 2,500 grams or 5lbs. 8oz.

### **Geographical Distribution**

The presence of geographical subdivisions such as Wards and Census Tracts in the District provides a basis for breaking down District-wide data into small area statistics for comparison and analyses. In the absence of individual-level socioeconomic data, these Ward statistics form a useful basis for evaluating health status indicators against demographic and environmental Ward characteristics. In 1999, there was a decrease in the number of infants born in all but three Wards of the city. The infant mortality breakdown by Ward for 1999 also shows a decline in the infant mortality rate for Wards 1, 2, 5, and 7. The infant mortality rate increased in the other four Wards (3, 4, 6 and 8). Among the four Wards with increased infant mortality rates for 1999, Ward 8 had a large increase from a rate of 11.6 in 1998 to 27.5 in 1999. The number of infant deaths increased by 18 in Ward 8 for 1999.

Т	Table 4: Births, Infant Deaths and Infant Mortality Rates by Ward District of Columbia Residents, 1998 and 1999						
	Births		Infant	Deaths	Infant Mortality Rate*		
Ward	1999	1998	1999	1998	1999	1998	
1	1,112	1,112	10	11	9.0	9.9	
2	799	756	10	11	12.5	14.6	
3	854	792	5	2	5.9	2.5	
4	936	943	14	10	15.0	10.6	
5	809	878	18	22	22.2	25.1	
6	824	828	11	7	13.3	8.5	
7	941	980	11	17	11.7	17.3	
8	1,237	1,383	34	16	27.5	11.6	
Unknown	1	6	-	-	-	-	
Total	7,513	7,678	113	96	15.0	12.5	

<sup>\*</sup>Infant deaths per 1,000 live births.

Note: (1) Due to the small number of infant deaths, the above infant mortality rates are highly variable and should be interpreted cautiously.

Table 5: Statistical Overview by Ward District of Columbia Residents, 1999

Ward	Births	Infant Deaths	IMR*	LBW	Teen Births	LBW to Teens
1	1,112	10	9.0	128	162	18
2	799	10	12.5	87	83	9
3	854	5	5.9	55	6	0
4	936	14	15.0	118	110	12
5	809	18	22.2	140	159	18
6	824	11	13.3	116	152	24
7	941	11	11.7	155	194	29
8	1,237	34	27.5	198	247	31
Unknown	1	-	-	-	-	-
Total	7,513	113	15.0	997	1113	141

<sup>\*</sup> Infant deaths per 1,000 live births.

Notes: (1) Teen birth means birth to a mother under 20 years of age.

- (2) LBW means low birth weight (under 2,500 grams or 5 lbs. 8 oz.).
- (3) Due to the small number of infant deaths, the above infant mortality rates are highly variable and should be interpreted cautiously.

Table 6: Statistical Overview by Ward District of Columbia Residents, 1998

Ward	Births	Infant Deaths	IMR*	LBW	Teen Births	LBW to Teens
1	1112	11	9.9	97	148	21
2	756	11	14.6	89	93	10
3	792	2	2.5	45	4	0
4	943	10	10.6	127	139	17
5	878	22	25.1	165	171	27
6	828	7	8.5	118	139	15
7	980	17	17.3	157	196	27
8	1383	16	11.6	209	281	40
Unknown	6	-	-	-	1	-
Total	7,678	96	12.5	1,007	1172	157

<sup>\*</sup> Infant deaths per 1,000 live births.

Notes: (1) Teen birth means birth to a mother under 20 years of age.

- (2) LBW means low birth weight (under 2,500 grams or 5 lbs. 8 oz.).
- (3) Due to the small number of infant deaths, the above infant mortality rates are highly variable and should be interpreted cautiously.

Source: D.C. State Center for Health Statistics Administration.

Table 7: Infant Mortality Rate Comparisons for Baltimore, The District of Columbia and Detroit, 1998 and 1999

Cities	1998	1999
Baltimore	12.2	13.5
District of Columbia	12.5	15.0
Detroit	14.7	15.5